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COLONY OF MAURITIUS

### Annual Report

on the

# Medical and Health Department 1943

[PRICE: 50 CENTS]



PRINTED AND PUBLISHED BY
J. H. BOWKETT, GOVERNMENT PRINTER,
PORT LOUIS, MAURITIUS, 1944.

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Medical and Health Department

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### Annual Report on the Medical and Health Department, 1943

#### I.—Administration

Dr. A. Rankine arrived in the Colony on 27th January, 1943, and assumed the duties of Director of the Department.

The Health Officer, Plaines Wilhems, continued to act as Medical Officer of the Detainment Camp, these duties occupying his whole time. The small staff of health officers was further depleted in the last quarter of the year by the illness of the Senior Medical Officer of the Hookworm and Malaria Branch who has since been invalided from the service. It is desired to take this opportunity to place on record the very excellent work which this officer has performed during his term of office.

Mr. C. R. Harrison, F.R.I., arrived in the Colony in September to advise on measures for the control of malaria. He is expected to remain in Mauritius for some nine months.

During 1943, nine male and four female hospital students qualified as dressers and nurses.

Five male and twelve female hospital students were enlisted for training.

Six sanitary cadets were also enlisted for training.

#### II.—Legal

The following legislation was passed during 1943—

Government Notice No. 28. Public Health Ordinance, 1925: Regulations made under sub-paragraph (a) of paragraph (1) of Section VI of Article 193 of the Public Health Ordinance, 1925.

Ordinance No. 3. The Quarantine (Amendment) Ordinance 1943, amending the Quarantine Consolidation Ordinance, 1913.

Ordinance No. 6. The Nurses (Amendment) Ordinance, 1943, amending the Nurses Ordinance 1940.

Government Notice No. 238. Public Health Ordinance 1925: Regulation made under paragraph (15) of Section V of Article 193 of the Public Health Ordinance, 1925, amending the Regulations published under Government Notice No. 22 of the 24th June, 1939.

Government Notice No. 340. The Quarantine Consolidation Ordinance, 1913: Regulation made under paragraph (q) of Article 2 of the Quarantine Consolidation Ordinance, 1913, as amended by Section 2 of the Quarantine (Amendment) Ordinance, 1943.

#### III.—Financial

The revenue of the Colony for the financial year 1942–43 was Rs. 32,585,072, of which Rs. 132,515 was received through the Medical and Health Department.

The expenditure on Medical and Sanitary Services was Rs. 1,674,686.

#### IV.—Public Health

1. The number of patients treated in the hospitals was 29,182 as compared with 31,454 for the previous year, and the number of attendances at dispensaries and out-patient departments of the hospitals was 281,789.

The number of cases of malignant disease admitted to the public hospitals was 329.

The total number of deaths in the Colony from cancer and other tumours is reported by the Registrar General to be 43.

#### 2. Malaria.

(a) The total number of patients suffering from malaria admitted to the hospitals was 3,215, a decrease of 1,799 over the figure for the previous year. The case mortality was 2.52 per cent.

The total number of deaths in the Colony from malaria and malarial cachexia, 2,407, is equivalent to a death rate of 5.87 per 1,000 living. The rate for 1942 was 7.49 per 1,000.

(b) The routine activities of the department have been maintained throughout the year.

At Bambous village 3,483 feet of the River Belle Isle were cleaned and canalised, the head-waters of several rivulets were canalised and some 176 ponds and their feeder-drains were filled in.

Measures taken for the protection of Beau Bassin include-

Cleaning and canalising of 3,100 feet of Plaines Wilhems River and over 1,200 feet of branches and feeders;

Draining of La Chaumière (in progress);

Regrading of Corps de Garde, Ramgoolam and La Louise drains (16,600 feet);

Five holes totalling 5,737 cubic feet on the north-eastern slope of Grand Malabar Hill and several smaller ones filled.

- (c) The Military Malaria Control Unit continued its activities and carried out several important works. While its object is the protection of members of His Majesty's Forces stationed in the Island, much of the work done cannot but be of permanent value to the civil population.
- 3. Filariasis.—35 and 90 cases of filariasis were treated in hospitals and dispensaries respectively in 1943.
  - 4. Plague.-No case of plague occurred during the year.

5, Smallpox.—There has been no indigenous smallpox since 1913. 10,131 children were vaccinated during 1943 by the public vaccinators. The statistics are as follows—

	cinations on first attendan			8,881 821
Unsuccessful v	raccinations		• • •	9,702 411
vaccinations is		Total	•••	10,131

The proportion of children vaccinated by Government Vaccinators to live births is 74.47 per cent.

With reference to this it should be borne in mind that an appreciable number of infants are vaccinated by private practitioners and are not included in the above mentioned figures:

- 6. Enteric Fever.—There were 292 cases of enteric fever notified in the Colony during 1943. September and October were the months of highest incidence.
- 7. Diphtheria.—142 cases of diphtheria were notified in 1943. The disease occurs sporadically; no epidemic outbreaks have been recorded for years. It is generally mild.
- 8. Diseases and Accidents associated with the Puerperal state.—Though various non-communicable conditions are included in these statistics it is convenient to group them under one head since their significance lies in revealing certain causes of maternal and infantile mortality.

75 deaths were registered as being due to the puerperal state.

11 cases of puerperal septicæmia, of which 7 proved fatal, were treated in hospitals, a case mortality of 63.6 per cent.

The maternal mortality rate (the ratio of the number of deaths ascribed to the puerperal state to the total number of births including still-births) was 5.14 per 1,000 in 1943 as compared with a rate of 11.58 per 1,000 for the previous year.

- 9. Erysipelas.—51 cases were notified, compared with 47 in 1942. 5 deaths were registered.
- 10. Tuberculosis.—Of the 10,642 deaths of 1943, 223 were due to tuberculosis.
- 11. Leprosy.—The disease is well under control and appears to be in regression.

No meeting of the Leprosy Board was held during the year. Seven patients were admitted to the Leper Hospital, all of which were re-admissions or old burnt-out cases who were destitute.

12. Venereal Diseases. 401 cases of admission for syphilis and 4 deaths from this disease were recorded from the hospitals during the year. 143 cases of gonorrhoea were treated, and 245 cases of soft chances.

13. Ankylostomiasis. 10,502 cases were treated in hospitals and dispensaries, and the number of deaths in hospitals ascribed to that disease was 27.

Due to reduced personnel the activities of the Hookworm Unit were limited to Plaines Wilhems and Moka districts, and to the more important sections of Grand Port, Savanne, Flacq and Black River. Shortage of the requisite drugs resulted in a reduction of the mass treatments normally carried out, the total number of which was 52,062?

14. Schistosomiasis. 21 cases were treated in the hospitals during the year and 254 at the dispensaries.

#### V.—Deficiency Diseases

The following deficiency diseases were recorded during the year.

Total cases of Deficiency Diseases treated in hospitals-

· · ·	orar cases of Defic	nency D	iseuses ti	eatea r	$n$ $nos_1$	pitats—		
	Beri-beri	* * *	* * *	4 + +	8	Avitaminosis "B"	35	
	mat s					(13 Detainment Camp)	- 00	24
	Rickets		• • •	• • •	6	Avitaminosis undetermined	183	77
	Avitaminos	is "A"	4 4 5		25	Pellagra	33	
	•	-				Scurvy (1 Detainment Camp)	3	1 20
1	otal number of a	ttendanc	es at Dis	spensar i	ies for	Deficiency Diseases—		771
	Rickets ·		• • •		13	Pellagra	108	
	Beri-beri	• • •		• • •	35	Avitaminosis undetermined	124	
	Scurvy	•••			1		- 11	281

The food situation has given cause for not a little anxiety, and at times there has been danger of a serious shortage of essential foodstuffs. The amount available can be described only as a bare minimum, and the supplies of animal fats, edible oils and proteins are insufficient to maintain a reasonable standard of nutrition. As a result, evidence of deficiency diseases has increased in hospital and dispensary practice.

Useful work has been carried out by the Nutrition Unit which, acting in concert with the Maternity and Child Welfare Society, is doing much to spread information as to the best methods of utilising what foodstuffs are available on the market.

#### VI.—Vital Statistics

- 1. Estimated population of Mauritius on the 30th June, 1943: 410,245. Area in square miles is 720; and the density of population per square mile is 569.78.
- 2. Marriages.—3,087 marriages were celebrated in 1943, as compared with 3,551 in 1942; showing a decrease of 464. This is equivalent to a marriage rate (number of persons married to every thousand of population) of 15.05 per 1,000, against 17.4 per 1,000 in 1942.
- 3. Births.—The total number of births for the year was 13,604 (males 6,857, and females 6,747). 4,580 of these occurred in the General and 9,024 in the Indian population. The birth rate was 33'1 against 33'2 per 1,000 in 1942.

4. Deaths. During the year 1943 the total number of deaths was 10,642 (males 5,724, and females 4,918); 3,575 in the General and 7,067 in the Indian population. The number is a decrease of 1,285 over the total deaths of 1942.

The death rate for the Colony was 25'9 compared with 29'2 for 1942, and with 27.64 per 1,000 for the quinquennial period preceding 1943. The month of maximum mortality was September, whilst in 1942 it was June.

5. The following table exhibits the causes of deaths and rates classified according to the "Manual of International List of Causes of Death" adopted by the Registrar General of England (based on the Fifth Decennial Commission, Paris, 1938)—

	Group			No. of deaths		Rate per 1,000
1.	Infective and parasitic diseases			3,340		8.14
	Cancer and other tumours	•••		43		.14
3.	Rheumatism, diseases of nutrition, e	etc	• • •	116		.28
	Diseases of the blood and bloodform			198		.48
5.	Chronic poisoning and intoxication	•••		2		.00
6.	Diseases of the nervous system and s	sense organs	• • •	419		1.02
7.	Diseases of the circulatory system	•••		236		·57
8.	Diseases of the respiratory system	• • •		1,340		3 <b>·2</b> 6
9.	Diseases of the digestive system	• • •	• • •	1,362		3.32
10.	Diseases of the urinary and genit venereal or connected with prepuerperium)	gnancy or		543	•••	1.32
11.	Diseases of pregnancy and childbirt					
	peral state	•		75		.18
12.	Diseases of the skin and cellular tiss	ue		74	•••	.18
13.	Diseases of bones and organs of mov	vement	• • •	5		.01
14.	Congenital malformations	•••		4		.00
15.	Diseases peculiar to the first year of	life /	• • •	855		2.08
16.	Senility, old age	,	• • •	512		1.25
17.	Death from violence	• • •	•••	202		•49
18.	Ill-defined causes of death	• • •	•••	1,316	•••	3.50
,		TOTAL	•••	10,642		_

6. The infantile mortality rate is the number of deaths of infants under one year of age occurring in any year for every thousand live births registered during the year.

The infantile rate for 1943 was 141.5 per 1,000 as compared with 163.4 per 1,000 for 1942.

7. A still-birth is defined by the Registrar General as "a child born dead at or after the seventh month of pregnancy."

The number of still-births registered during 1943 is as under—

Males	···		•••	• • •	544
Females	• • •		• • •		447
		•	TOTAL	• • •	991

It is equivalent to 7.3 per cent of live births for the same period, as compared with 9.6 per cent for 1942.

#### VII.—Food and Drugs in Relation to Health and Disease

There are six public and three private abattoirs in the Colony. The public abattoirs administered by the Municipality of Port Louis, the Boards of Beau Bassin-Rose Hill, and Curepipe, are each controlled by a veterinary officer. The other abattoirs are conducted under the supervision of the sanitary staff.

It may be said that on the whole the foodstuffs marketed are wholesome and of good quality. The only condition found with any frequency in the meat trade is tuberculosis. Cestode infection is uncommon among cattle, and it is very rare in human beings.

Milk on the other hand is seldom purchasable in its normal state and, despite measures of control, sophistication is widespread.

Delay in the receipt of consignments of drugs has strained the resources of the Colony to the utmost. Particularly is this so in the case of mepacrine and other synthetic anti-malarial preparations which, as a result of the necessary limitation of supplies of quinine, are in great demand.

#### VIII.—Port Health Work and Administration

The following table summarises the work done by the Port Sanitary Authority—

				Sailing craft		Steamers		Air rafts
Vessels arriving	è s 4	***		23*	•••	117 .	• •	1
Crews examined	4 8 8					2;025 .		7
Passengers examined		* * *	***			44 .	(	3
Vessels given pratique on a	rrival	• • •	5 0 4	23		93 .	• •	1
Vessels given pratique after and effects of the pas								
and disinfection of the	forecastle				• • •	14		term complete
Vessels given pratique after		on of linen,	etc.,					
• and claytonisation of ca	argo	***	•••			10 .	• •	g-1-1-1-1-1-2
Vessels arriving from infect			* * *	*******		24	• •	1
Vessels detained for purpose gation on account of plants					•••		••	source.

#### IX.—Hospitals

There has been a decrease in the number of patients treated in the hospitals of the Colony: 29,182 against 31,454 for the previous year. The number of confinements conducted in hospitals was 1,040 against 1.175 for 1942.

The number of estate hospitals at the end of the year was 40.

2. The professional work of the hospitals is summarised in the table at the end. In the rural districts the principal causes of admission to hospitals are malaria, ankylostomiasis and respiratory diseases. It will be noted that pneumonia and malaria are noteworthy causes of death in hospitals.

<sup>\*</sup>Including three life-boats.

#### X.—Dispensary Returns

The dispensaries and the hospital out-patient departments were consulted by male patients 142,953 times and by female patients 138,836 times: total 281,789.

The number of new cases amounted during the year to 202,225. In 1942, 216,064 were recorded.

The statistics of the number of new cases seen at hospital outpatient departments and at dispensaries are not accurate owing to the difficulty frequently experienced in deciding whether a case should be registered as a new case or as a reappearance. The most reliable figures are those of attendances.

#### XI.—Maternity and Child Welfare

The Maternity and Child Welfare Society suffered from an acute shortage of staff. During the year five midwives, representing twenty-five per cent. of the staff resigned on the grounds of marriage or of ill-health. Lack of trained nurses and midwives constitutes a severe handicap to this as well as to other branches of social health work. Despite these difficulties, much good work has been done and in this the Island Branch of the British Red Cross Society has played a part.

Locally produced yeast and shark liver oil are now being issued through the auspices of the Society and, in collaboration with the Poor Law Authorities, a large number of needy infants and toddlers has been receiving milk.

Four qualified midwives are employed by Government. They made 1,926 visits and attended 346 confinements.

#### XII.—Detainment Camp

Health conditions in the Camp have been satisfactory during the year. There has been no epidemic.

Anti-malarial measures in and around the Camp have markedly reduced the number of cases of malaria. In 1943 there were 75 new cases as compared with 91 in 1942 and 566 (the first year in Mauritius) in 1941. The numbers of admissions to hospital on account of relapses in these three years were: 476, 670, 1,172.

Dysentery accounted for 48 admissions to hospital. Of these, 38 were amæbic, 8 bacillary and 2 undefined.

Signs of deficiency of the vitamin B<sub>2</sub> complex are not infrequently noted. 16 persons were treated solely on this account, three of them being cases of pellagra.

#### XIII.—Nutrition

The Nutrition Unit continued its investigation in regard to locally grown food-stuffs and in particular to vitamin C content. Experiments were also made in connection with preservation of local food stuffs such as meat, fish, starchy roots, etc.

A survey of urban populations was begun in April, but, owing to shortage of personnel this had to be discontinued.

The value of shark liver oil having been established, deep-sea shark fishing was organised early in 1943. Autolysed yeast, concentrated by decantation, was produced in increasing quantities and is distributed through the medium of hospitals and child welfare clinics.

By means of travelling vans, demonstrations in methods of cooking flour, soups, etc., were given in various parts of the Colony, while other educational features were radio talks, lectures to school teachers and others, and posters. The Nutrition Unit also organised an exhibition in Curepipe which was largely-attended.

#### XIV.—Emergency Medical Service

The emergency hospitals have been maintained and, in consultation with the Naval, Military, Civil Defence and Red Cross Authorities, a scheme was prepared to deal with the reception and disposal of casualties resulting from emergency either within or without the limits of the Colony.

#### XV.—General

Bacteriological Laboratory—Good work was performed at this institution.

The number of specimen examined were—

Medical division ... 18,176

Chemical division ... 3,848 22024

Prisons.—The general hygiene in the prisons has been maintained at its usual satisfactory standard.

#### CONCLUSION

My thanks are due to individual officers of the Department for their kind and active co-operation and assistance throughout the year.

A. RANKINE, Director, 24th April, 1944. Medical and Health Department.

REPORT ON HOSPITALS FOR THE YEAR 1943

Particular discases cansing largest number of deaths	Malaria, pulmonary tuberculosis, heart diseases, pneumonia, enteritis, diarrhœa, bronchitis, injuries.	Pneumonia.	Pneumonia, enteritis.	Nephritis, epilepsy, dysentery. Malaria, pneumonia, congenital diseases, intestinal diseases, injuries.	Pheumonia, dysentery, tuberculosis. Pheumonia, tuberculosis. Chronic nephritis, lobar pheumonia inimises malaria	Diarrhea, ankylostomiasis, enteri- fis anzemia malaria	Pneumonia, malaria, bronchitis.	Anæmia, diarrhæa, dysentery.	Myocardial degeneration.	
Particular discases causing largest number of admissions	Malaria, pulmonary tuberculosis, anæmia, pneumonia, abscesses, enteritis, dyspepsia, confinement, ankylostomiasis, bronchitis, inju-	ries. Malaria, influenza, dysentery, pneu- monia, abscesses.	Malaria, influenza, diseases of the	Malaria, dysentery, epilepsy. Malaria, abscesses, ankylostomiasis, intestinal diseases, injuries	Malaria, anzemia, injuries, abscesses. Ankylostomiasis. malaria. Malaria, influenza, bronchitis, injuries.	Malaria, ankylostomiasis, tuberculosis, avitaminosis, inimies	Malaria, abscesses, influenza, bfon-	Malaria, dysentery, diarrhea, skin	ifluenza. kin diseases, diseases of ry system.	
Number of operations	4,039	46	10	, 9 1,588	183 151 767	1,203	532	431	-	8,959
Number of beds	316	. 77	16	, 64 269	65 70 86	83	106	103	200	1,402
Patients remaining on 31.12.43	143	6	10	16	16 25 13	19	+ 13	64	152	663
Deaths	44	64		, 72 , 414	80 24 60	77	176	79	17	1,444
Nete admissions	8,863	301	538	5,652	1,751	1,426	2,590	1,931	2,044	28,848
Patients remaining on 31.12.42	177	~	10	6.	23 19 5	. 26	43	24	155	670
P Hospital ren	Civil	Port Louis Prison	Grand River North- West Prison	Mental	Long Mountain Poudre d'Or Flacq	Moka	Mahebourg	Souillac	Industrial School Detainment Camp	TOTALS

25 21

#### MAIN CAUSES OF MORBIDITY IN RELATION TO IN-PATIENTS AT HOSPITALS

Diseases	1943	Diseases			1943
- Malaria	3,215	Dysentery	• • •	•••	680
Injuries	3,154	Bronchitis	• • •	•••	646
Skin diseases	2,318	Tuberculosis	•••	* * \$	453
Abscesses	2,054	Pneumonia	• • •	•••	451/
Diarrhœa and enteritis	1,258	- Syphilis			401/
Influenza	780	Soft chancre		,	245
Ankylostomiasis	739	Gonorrhœa		4 4 9	143

## MAIN CAUSES OF MORBIDITY IN RELATION TO OUT-PATIENTS AT DISPENSARIES (1ST ATTENDANCES ONLY)

Diseases	,	1943	Discases	1943
Malaria	• • •	48,944	Other skin diseases	5,602
Diseases, teeth and gums	• • •	23,699	Diarrhœa and enteritis	5,334
Influenza	• • •	17,009	Rheumatism	4,215
Ankylostomiasis		9,763	Bronchitis	2,859
Ascariasis		8,910	Dysentery	2,818
Abscesses		7,894	Eye diseases '	2,803
Scabies	•••	6,992	Asthma	2,325
Injuries	• • •	6,836	Syphilis	1,013
Dyspepsia	•••	6,244	Tuberculosis	666
Anæmia	• • •	5,899	Soft chancre	596
			Gonorrhœa	345

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